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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/853,137

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Marty J. Ryberg

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EXAMINER

BELIVEAU, SCOTT E

ART UNIT

PAPER NUMBER

2614

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/853,137

Applicant(s)

RYBERG, MARTY J.

Examiner

Scott Beliveau

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-15 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-15 and 17-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 8, and 15 have been considered but are moot in view of the new ground(s) of rejection.

With respect to applicant's arguments that the previously presented combination of Galipeau et al. and Garney et al. fails to particularly disclose an integrated signal unit which reformats the plurality of signals into reformatted information and transmits the reformatted information to the passenger seat, the examiner respectfully disagrees. As illustrated in Figures 6 A/B of Galipeau et al., the integrated seat receives the plurality of signals associated with different services in the form of IEEE 1394 signals (Figure 6A). The signals are subsequently "reformatted" by the appropriate receiving modules [114/120/142/152] for output via USB. Furthermore, taken in combination with Garney et al., the signals are "reformatted" from being signals distributed via a wire medium to signals being distributed wirelessly.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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3. Claims 15 and 18-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Galipeau et al. (US Pat No. 6,249,913 B1).

In consideration of claim 15, Figure 1 of the Galipeau et al. reference illustrates a communication system for an aircraft [10] comprising an “integrated signal unit” [18] that “communicates a plurality of disparate signals of an aircraft bus” [20] “to and from the passenger seat” wherein the “signal unit” [18] interfaces to the “aircraft bus via existing telecommunication lines” such as those associated with USB, IEEE-1394 or the like (Col 4, Lines 32-52). The lines, as illustrated, are necessarily “existing” in order for the system to operate. The “signal unit” [18] “reformats at least one of audio signals and video signals into reformatted information” (ex. IEEE-1394 to USB) and “transmits the reformatted information over the existing telecommunication lines to the passenger seat” for the passenger to enjoy. As illustrated in Figures 6A/B, the system further comprises a “receiving system” associated with the user’s handset/telephone/video monitor [124/144/154] which is in “communication with the signal unit that receives at least one of the plurality of disparate signals and outputs a signal to a passenger in the passenger seat” including those associated with telephony, audio programming and video services as aforementioned (Figure 9B).

Claims 18 and 19 are rejected wherein the “signal unit reformats audio signals as audio data” [120] and necessarily “transmits the audio data on an unused channel” in accordance with the USB standard such that “the signal is sent to the passenger seat for output to the passenger via an unused channel” in order for the user to selectively receives and listen to a discrete audio selection (Col 7, Line 34-41; Col 8, Line 16-21). For example, it is unclear as to how a universal serial bus comprising a number of channels would send information over

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a channel that is currently used or busy and still provide the user with the selected audio programming.

Claim 20 is rejected wherein the system further comprises an “integrated receiver” [124] “associated with the passenger seat and in communication with the signal unit such that a plurality of signals received there into are parsed and presented to the passenger on a logical basis”. For example, the “integrated receiver” is capable of present a plurality of signals corresponding to audio programming logically through the usage of headphones (Col 7, Line 34 – Col 8, Line 10) and is also integrated with telephony functionality (Col 9, Lines 5-12).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, and 4-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galipeau et al. (US Pat No. 6,249,913 B1) in view of Garney et al. (US Pat No. 5,890,015)

In consideration of claim 1, Figure 1 of the Galipeau et al. reference illustrates an “integrated communication system for an aircraft” [10] having “at least one passenger seat” [12] (Col 4, Line 51 – Col 4, Line 20). As illustrated in Figures 6/B, the system comprises an “integrated signal unit” [18] that is operable to “receive and transmit a plurality of signals of disparate nature to and from a user of the at least one passenger seat in the aircraft” [12] (Col 6, Line 64 – Col 9, Line 21). The “integrated signal unit” [18] “reformats the plurality of

signals into reformatted information” (ex. IEEE-1349 to USB or USB to IEEE-1394) and “transmits the reformatted information to the passenger seat” for the user to subsequently interact. The system comprises a “plurality of aircraft communication links” (ex. seat-to-seat cable [20]) “interfaced with the integrated signal unit for carrying the reformatted information throughout the aircraft” [10] from “sources of the reformatted information” [18] (Col 5, Lines 26-34) and a “receiving device” [124/130/144/154] “interfaced to at least one passenger seat and in communication with the integrated signal unit” [18] for “receiving the reformatted information and outputting a signal to a passenger in the passenger seat” (Figure 9B).

With respect to the limitation that the “plurality of aircraft communication links include pre-existing aircraft telecommunication wiring”, as aforementioned, the reference discloses that the installed wiring supports the communication of information comprising audio, video, and telephony signals from remote locations thereby facilitating telecommunication services (Col 4, Lines 21-52). The particular wiring utilized within the aircraft system of Galipeau et al. is broadly construed as being “pre-existing” given that it existed before the filing of the instant application. Alternatively, the wiring is construed as “pre-existing” in the context of it necessarily existing prior to the user operating the system so as to facilitate the communication of signals between system components. Even further, the wiring would be considered “pre-existing” should a “integrated signal unit” [18] fail and be subsequently replaced by an operational unit (Col 6, Lines 57-62). Additionally, the reference further explicitly incorporates by reference provisional application 60/103,823 which discloses that the system may take advantage of existing wiring within the aircraft in connection with

system installation or system upgrades in order to take advantage of cost savings associated with the reuse of previously installed components (Examiner designated Page 9 - 3.7 Upgrade Requirements; Page 29 – Overview – What is Voyager? (cont.)). Such wiring may include reusing the “pre-existing aircraft telecommunication wiring” associated with the telephony system (Pages 2 and 3 – Section 3.2 Telephone Distribution System; Pages 35-38 – Telephony Subsystem).

As illustrated in Figures 6A/B, the Galipeau et al. reference illustrates the particular usage of USB in order to enable the “signal unit” [18] to “communicate the plurality of disparate signals to and from the passenger seat”. The reference, however, is silent with respect to the usage of a “wireless link” such as that associated with the disclosed USB interconnection. In a related art pertaining to data distribution, the Garney et al. reference discloses the particular usage of a “wireless link” for interconnecting USB peripherals (Abstract; Figure 4-6 and 8; Col 6, Lines 3-34) such that communications are “reformatted” into wireless signals. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to modify Galipeau et al. so as to employ a USB “wireless link” as taught by Garney et al. such that the “integrated signal unit” [18] further “reformats the plurality of signals into reformatted information” (ex. wireline IEEE-1394 to wireless USB) for the purpose of advantageously providing a means so as to interconnect USB devices using current technologies for transmitting wireless signals thereby advantageously enhancing passenger mobility, providing greater flexibility by eliminating maximum cable length requirements, and reducing aircraft the weight penalty through the elimination of peripheral wiring.

Claim 2 is rejected wherein the “plurality of signals of disparate nature comprise at least one of audio signals, video signals, and data signals” (Galipeau et al.: Col 3, Lines 1-10).

Claim 4 is rejected wherein the “receiving device comprises a speaker” (Galipeau et al.: Col 7, Lines 55-59).

Claim 5 is rejected wherein the “receiving device comprises a video monitor” [154] (Galipeau et al.: Col 9, Lines 17-25).

Claim 6 is rejected wherein the “receiving device comprises a telephone handset” [144] (Galipeau et al.: Col 8, Lines 47-50).

Claim 7 is rejected wherein the “receiving device comprises an intercom” [124] (Galipeau et al.: Col 8, Lines 4-10).

Claim 8 is rejected wherein the Galipeau et al. reference discloses a “communications system” for use in an “aircraft” [10]. As previously set forth, the “system” comprises a “seat unit at a passenger seat” [18] (Col 4, Lines 1-12) “operable to receive a plurality of signals bussed through the aircraft” (Figures 1 and 6A/B), a “first audio processing circuit” [196] “operable to generate audio signals . . . being coupled to the seat unit over a wireline communication channel” [20] (Figures 9 A/B; Col 11, Lines 9-21), and a “first telephone signal processing circuit” [188] “operable to receive and send telephone signals . . . being coupled to the seat unit over a wireline communication channel” [20] (Figures 9 A/B; Col 10, Lines 39-46). The “seat unit” [18] “reformats the audio signals into reformatted audio information” (ex. IEEE-1394 to USB), “reformats the telephone signals into reformatted telephone information” (ex. IEEE-1394 to USB), and “transmits” the respective “reformatted

audio information” and the “reformatted telephone information to the passenger seat” for passenger usage.

The “seat unit” [18], as illustrated in Figures 6 A/B, further comprises a “first audio processing receiving circuit” [120] “operable to receive the . . . audio information for processing and delivery to a passenger audio transducer” (or speaker) (Col 7, Line 33 – Col 8, Line 39), a “second telephone signal processing circuit” [142] “that is operable to receive and send . . . telephone information for delivery to and from a passenger telephone handset” [144] (Col 8, Line 40 – Col 9, Line 15). As illustrated, the “seat unit” [18] further comprises “electrical circuitry” [92] “coupled to and shared by the first audio processing receiving circuit and the second telephone processing circuit” (Col 6, Lines 7-13).

As previously set forth, As aforementioned, Figures 6A/B of the Galipeau et al. reference illustrates the particular usage of USB in order to enable the “signal unit” [18] to “communicate the plurality of disparate signals to and from the passenger seat”. The reference, however, is silent with respect to the usage of a “wireless link” such as that associated with the disclosed USB interconnection. In a related art pertaining to data distribution, the Garney et al. reference discloses the particular usage of a “wireless link” for interconnecting USB peripherals (Abstract; Figure 4-6 and 8; Col 6, Lines 3-34). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made so as to modify the “seat unit” of Galipeau et al. so as to employ a USB “wireless link” in conjunction with the “first audio processing receiving circuit” and the “second telephone signal processing circuit” as taught by Garney et al. for the purpose of advantageously providing a means so as to interconnect USB devices using current

technologies for transmitting wireless signals thereby advantageously enhancing passenger mobility, providing greater flexibility by eliminating maximum cable length requirements, and reducing aircraft the weight penalty through the elimination of peripheral wiring.

Accordingly, the “first audio processing receiving circuit” and the “first telephone signal processing circuit” would “receive” the respective “reformatted information” (ex. IEEE-1394 to USB) for subsequent processing and delivery via a wireless formatted signal.

Claim 9 is rejected wherein the “plurality of signals comprise at least one of audio signals, video signals, and data signals” (Galipeau et al.: Col 3, Lines 1-10).

Claim 10 is rejected wherein the “first audio processing circuit comprises a radio audio processing unit” [196] (Galipeau et al.: Col 11, Lines 9-21).

Claim 11 is rejected wherein the system further comprises a “second audio processing circuit” [194] “operable to generate audio and video signals and being coupled to the seat unit” [18] over a “wireline communication channel” [20] (Galipeau et al.: Figure 9/A; Col 10, Line 61 – Col 11, Line 8).

Claims 12 and 13 rejected wherein the “passenger audio transducer comprises a video monitor” [154] and “speaker” for outputting the audio associated with the video programming (Galipeau et al.: Col 9, Lines 21-25 and 32-37).

Claim 14 is rejected wherein the system further comprises a “telephone handset” [144] “coupled to the first telephone signal processing circuit for directing telephone signals to a passenger” [188] (Galipeau et al.: Col 2, Lines 24-36; Col 10, Lines 39-46).

Conclusion

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as follows. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objections made.

- The Terbrack et al. (US Pat No. 4,412,355) reference provides evidence that it was known in the art to interconnect passenger seats to associated seat electronics using wireless links.
- The Keiper reference (DE 3719105 A) reference provides further evidence as to the particular usage of wireless links within aircraft.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Beliveau whose telephone number is 571-272-7343.

The examiner can normally be reached on Monday-Friday from 8:30 a.m. - 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Scott Beliveau
Examiner
Art Unit 2614

SEB
February 20, 2006